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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|--|-------------|----------------------|-----------------------|------------------|--|
| 10/821,918 | 04/12/2004 | Sung Uk Moon | 251781US90 | 2428 | |
| 22850 7590 06/13/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET | | | EXAM | EXAMINER | |
| | | | JACKSON, BLANE J | | |
| ALEXANDRIA | A, VA 22314 | | ART UNIT PAPER NUMBER | | |
| | • | | | 2618 | |
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| | | | NOTIFICATION DATE | DELIVERY MODE | |
| | | | 06/13/2007 | ELECTRONIC | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | Application No. | Applicant(s) | | | | | |
|---|--|--|--|--|--|--|--|
| | 10/821,918 | MOON ET AL. | | | | | |
| Office Action Summary | Examiner | Art Unit | | | | | |
| | Blane J. Jackson | 2618 | | | | | |
| | The MAILING DATE of this communication appears on the cover sheet with the correspondence address | | | | | | |
| Period for Reply | | | | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period v - Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATIC 36(a). In no event, however, may a reply be t vill apply and will expire SIX (6) MONTHS fron cause the application to become ABANDON | DN. imely filed m the mailing date of this communication. ED (35 U.S.C. § 133). | | | | | |
| Status | | | | | | | |
| 1) Responsive to communication(s) filed on 12 April 2004. | | | | | | | |
| , <u> </u> | | | | | | | |
| |) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | | |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | | | |
| Disposition of Claims | | | | | | | |
| 4) Claim(s) 1-8 is/are pending in the application. | | | | | | | |
| 4a) Of the above claim(s) is/are withdraw | wn from consideration. | | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | | |
| 6)⊠ Claim(s) <u>1-8</u> is/are rejected. | , <u> </u> | | | | | | |
| • | 7) Claim(s) is/are objected to. | | | | | | |
| 8) Claim(s) are subject to restriction and/or election requirement. | | | | | | | |
| Application Papers | | | | | | | |
| 9)☐ The specification is objected to by the Examiner. | | | | | | | |
| 10)⊠ The drawing(s) filed on <u>12 April 2004</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner. | | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | | | |
| 11)[] The oath or declaration is objected to by the Ex | caminer. Note the attached Onic | Se Action of John PTO-132. | | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | | |
| 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document | ts have been received. Is have been received in Applica | ation No | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). | | | | | | | |
| * See the attached detailed Office action for a list of the certified copies not received. | | | | | | | |
| | | | | | | | |
| Attachment(s) 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) | | | | | | | |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail | Date | | | | | |
| 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date | 5) Notice of Informa 6) Other: | l Patent Application | | | | | |

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DETAILED ACTION

Information Disclosure Statement

The Information Disclosure Statements filed 02 June 2004 and 13 April 2006 and have been made of record.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Ue et al. (US 6,973,289).

As to claims 1 and 7, Ue teaches a wireless base station comprising a transmission controller which controls a plurality of downlink transmission rates corresponding to a plurality of communications terminals based on a plurality of downlink transmission qualities corresponding to the communications terminals (figure 1, a base station including a transmission rate switching controller (106)) comprising:

A transmission-quality obtaining unit configured to obtain said downlink transmission qualities of said communications terminals (figure 2, column 3, line 64 to

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column 4, line 28, communication terminal apparatus comprising a reception quality measurement circuit (205)),

A communication-terminal selecting unit configured to select out of said communications terminals one or more which cause to change corresponding one or more of the downlink transmission rates in accordance with said downlink transmission qualities obtained at said transmission-quality obtaining unit (figure 1, column 3, lines 41-63, base station apparatus including a transmission frame generator (107)), and

A transmission-rate changing unit which causes to change said one or more of the downlink transmission rates corresponding to said one or more of the communications terminals selected at said communications-terminal selecting unit (figures 1 and 12, column 6, line 26 to column 7, line 58, utilizing a transmission rate switching control circuit (106), the base station switches the transmission rate based on the reception quality measured and received on the downlink by the terminal apparatus, the results transmitted on the uplink by the terminal apparatus to the base station).

As to claim 2, Ue teaches the transmission controller as claimed in claim 1 wherein said transmission-quality obtaining unit further comprises one of a transmission-quality measuring unit configured to measure said downlink transmission qualities by said transmission-quality measuring unit itself and a transmission-quality receiving unit configured to receive said downlink transmission qualities measured by and reported from said communications terminals (figure 2, column 4, lines 1-63,

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reception quality measurement circuit (205), the reception quality includes received signal strength, desired signal reception power, SIR or SINR).

As to claim 3, Ue teaches the transmission controller as claimed in claim 1 wherein said communications-terminal selecting unit selects as said one or more of the communications terminals which cause to change said corresponding downlink transmission rates at least one out of said communications terminals with corresponding downlink transmission quality falling below a predetermined quality (figures 12-14, column 6, line 51 to column 7, line 58, the reception quality measurement result from each communications terminal is processed with respect to several thresholds to determine the channel condition to determine to change the transmission rate).

As to claim 4, Ue teaches the transmission controller as claimed in claim 2 wherein said communications-terminal selecting unit selects said one or more of the communications terminals which cause to change said corresponding downlink transmission rates based on at least one of transmission speeds corresponding to said communication terminal traveling speeds corresponding to said communications terminals, received quality values reported from the corresponding communication terminals, arrival times of said received-quality values reported and arrival orders of said received-quality values reported and arrival orders of said received-quality values reported and arrival orders of said received-quality values reported from the communication terminal apparatus to the base station all the time or reporting on an as-needed basis).

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As to claim 5, Ue teaches the transmission controller as claimed in claim 2 wherein said communications-terminal selecting unit selects randomly said one or more of the communications terminals which cause to change said corresponding downlink transmission rates (column 5, lines 5-27, the transmission rate switching information is reported from the communication terminal apparatus to the base station all the time or reporting on an as-needed basis).

As to claim 6, Ue teaches the transmission controller as claimed in claim 2 wherein said communications-terminal selecting unit selects said one or more of the communications terminals which cause to change said corresponding downlink transmission rates based on a plurality of ratios relative to a predetermined power value of a plurality of total-transmission power values corresponding to said communications terminals (figure 4, column 4, lines 41-63, SINR measurement circuit).

As to claim 8, Ue teaches a method of controlling transmission rate which controls a plurality of downlink transmission rates corresponding to a plurality of communications terminals based on a plurality of downlink transmission qualities corresponding to the communications terminals (column 6, lines 51-57) comprising the steps of:

Obtaining said downlink transmission qualities of said communications terminals (figures 1 and 2, column 3, line 41 to column 4, line 16 and figures 6-11, column 5, line 5 to column 6, line 57),

Comparing with a predetermined quality value corresponding values of said downlink transmission qualities obtained (column 6, line 58 to column 7, line 7, the base station apparatus compares the reception quality measurement result reported from the communication terminal with one or several thresholds),

Selecting when at least one of said downlink transmission qualities is determined to fall below a predetermined quality as one or more of the communications terminals which cause to change corresponding one or more of the downlink transmission rates at least one communications terminal out of said communications terminals with corresponding downlink transmission quality falling below said predetermined quality (column 6, line 58 to column 7, line 58, the reception quality measurement reported from a terminal is compared to several thresholds to determine the channel condition and select the appropriate transmission rate at the base station),

Changing said downlink transmission rate of said at least one communications terminal selected (figures 12-15 column 7, lines 3-58, if the channel condition is good, the transmission rte is increased to transmit as much data as possible).

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Conclusion

The prior art made of record and not relied upon but considered pertinent to applicant's disclosure includes: Miyoshi et al. (6,738,646) and Kikuma et al. (Us 6,999,764).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blane J. Jackson whose telephone number is (571) 272-7890. The examiner can normally be reached on Monday through Thursday, 7:30 AM-6:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Blan John